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ABSTRACT

This study sought information about selective service rejection in Delaware, specifically rejectee characteristics, reasons for rejection, and the high rejection rate in Delaware. The basic design was a modified case study method in which a sample of individual records were examined. Differences between this sample and national samples were tested by Chi Square. The Fisher Exact Method was used to test relationships between rejectee characteristics. Four fifths of the rejectees were IV-F. The Fisher test revealed that: (1) the relationship between the rejectee's educational level and that of his parents approached significance; (2) there is a strong relationship between high school program and dropping out; (3) no significant relationships were found between educational level and social behavior, educational level and race, and educational program and social behavior. Socioeconomic factors were highly related to rejection as suggested by the high correlation between rejection and the number of Negroes examined, the number of households with income below \$5000 and per-pupil expenditure in the schools. It is recommended that Delaware revise its public school curriculum so as to emphasize special help to disadvantaged groups and the racial minorities. (DM)

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RESEARCH REPORT:

SELECTED FACTORS RELATED TO SELECTIVE SERVICE REJECTION IN DELAWARE (1967)

Division of Research, Planning, and Evaluation

State Department of Public Instruction
Dover
Delaware

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STATE OF



DELAWARE

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**SELECTED FACTORS RELATED TO SELECTIVE SERVICE REJECTION
AND REJECTION RATE IN DELAWARE (1967): A STUDY OF
THE CHARACTERISTICS OF YOUNG MEN FAILING TO
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June, 1970

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MILITARY SERVICE**

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Division of Research, Planning,
and Evaluation**

PREFACE

During the past year the Research, Planning, and Evaluation Division has had several inquiries relating to Delaware's apparent high rejection rate on the mental test administered to inductees by the Selective Service office.

This report has been prepared by Mr. Jay Price, Research Intern, in the Research, Planning, and Evaluation Division with assistance from Mr. John McGowan, Supervisor, in the Occupational Research Section to provide information to selected individuals and groups in the state regarding the characteristics of individuals failing to meet the mental qualification standards established by the Selective Service System.

It should be noted that the study is based on a ten percent sample of 1967 rejectees and the data for the study were obtained from available records in the Selective Service office and in local school district offices.

School district superintendents and guidance counselors deserve credit for cooperating with this study by making available to Mr. Price the student records.

Wilmer E. Wise, Director
Division of Research, Planning,
and Evaluation

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I. Introduction

a. Rationale and Background

Within the past ten years, Delaware has had a selective service rejection rate on Armed Forces Mental Tests that has consistently ranked it in the 30's when compared with other states. The rejection rate has ranged from a low of 11.4 percent to a high of 30.6 percent within the ten year period. As Table I shows, the percentage of rejection in Delaware has been decreasing since 1964 while the rank has remained fairly constant. This seems to be a result of lowered national standards for acceptance into the Armed Forces.¹

TABLE I

Percent of Selective Service Draftees
Rejected on the Basis of Preinduction and Induction
Mental Tests (1957-1967) in Delaware

Year	Rank Among 50 States	Percent Rejected in Delaware	U. S. Mean Rejection in Percent
1957	30	15.7	18.9
1959	39	28.9	24.7
1960	30	18.8	21.7
1961	38	27.7	23.0
1962	37	24.9	24.5
1963	33	23.0	24.7
1964	34	30.6	29.9
1965	34	22.5	21.4
1966	40	17.0	12.4
1967	34	11.4	11.3

¹Supplement to Health of the Army. Washington, D. C.:
Department of the Army, 1968.

Selective service rejection is not a problem unique to Delaware. On the national level, data relative to draft rejection is thought to indicate a lack of basic skills necessary for employability.² That lack of skills is an important problem is evidenced by the Armed Forces lowering acceptance standards to obtain needed manpower and instituting skill rehabilitation programs to retrain men to operate at acceptable military levels.³

There is a need for more information about who are rejectees and what are they like. This study has been undertaken to provide information and knowledge about Selective Service rejection and the relatively high rejection rate in Delaware. Specifically, (a) who are the rejectees, (b) why is a person rejected, and (c) why is Delaware's rejection percentage higher compared to other states?

b. Related Literature

An examination of "Supplement to Health of the Army" revealed the acceptance and rejection procedure used by the local boards when considering examinees. Every registrant examined for

²President's Task Force on Manpower Conservation, One-Third of a Nation. Washington, D.C.: Department of Labor, 1963.

³Supplement to Health of the Army. Washington, D. C.: Department of the Army, 1968, page 20.

military service takes the Armed Forces Qualifying Test (AFQT) which was developed jointly by all military services. The 1967 test contained one hundred questions equally distributed among the following areas: vocabulary -- ability to handle words and understand verbal concepts; arithmetic -- ability to reason with numbers and solve simple mathematical problems; spatial relations -- ability to distinguish forms and patterns; and mechanical ability -- ability to interrelate tools and equipment.

The test was designed to measure the examinee's general mental ability to absorb military training within a reasonable length of time and provide a uniform measure of the examinee's potential general usefulness in the service. Specifically, the AFQT is intended to predict potential success in general military training and performance.

The examinee's score on the tests depends on several factors: on the level of his educational attainment, on the quality of his education (quality of the school facilities); and on the knowledge he gained from his educational training or otherwise, in and outside of school. These are interrelated factors, which obviously vary with the youth's socioeconomic and cultural environment in addition to his innate ability to learn commonly understood as I. Q. Hence, the results of these mental tests are not to be considered measures of I. Q., nor are they to be translated in terms of I. Q.

⁴Supplement to Health of the Army. Washington, D. C.: Department of the Army, 1968, page 18.

The examinees' scores on the AFQT are grouped in the following manner:⁵

<u>Mental Group</u>	<u>Corresponding Normative Percentile Ranges</u>	<u>Percent expected Within each group</u>
I	93--100	7
II	65--92	28
III	31--64	34
IV	10--30	21
V	9 or below	10

Rejection is dependent upon falling into the Class IV and Class V on the AFQT. A score falling in Class V means automatic rejection although a post-examination interview is conducted by personnel at the induction center to determine the validity of Group V classifications.

Under the 1967 standards (the current standards), a Group IV classification means that if the individual has graduated from high school, he automatically is accepted with no further testing. If a Group IV member is not a high school graduate, he is given the Army Qualifications Battery, a test comprised of seven aptitude areas (Infantry, Armor, Artillery, Engineering, Electronics, General Maintenance, Motor-Maintenance, Clerical, and General

⁵ Supplement to Health of the Army. Washington, D. C.: Department of the Army, 1968, page 19.

Technical), to determine his area aptitude. If his AFQT score falls within the sixteenth to thirtieth percentile range, he needs an AQB score which would place him at or above the nintieth percentile in one aptitude area to which he would be accepted. If his AFQT percentile range is ten to fifteen, he needs an AQB score which would place him in the nintieth percentile on any two aptitude areas to be accepted. (1Y rejectee classification results from failure to meet the additional mental test standards for Group IV AFQT scores. 4F rejectee classification results in an AFQT score below the tenth percentile.)

Additional studies investigating the problem of selective service rejection have dealt with the educational, socio-economic, ability and achievement level backgrounds of the rejectees. In a study, One-Third of a Nation, 2500 rejectees from thirty-seven states with both urban and rural environmental backgrounds were sampled. The report presents tables containing social, economic, and motivational data on rejectees. About the mental rejectees the report states that

...the most important single fact that emerges... is that a large proportion of the young men who fail the Armed Forces mental test are the children of poverty. Too many of their parents are poor. If the present course ⁶ of events continues, their children will be poor.

Huq and Jerdee conducted a pilot study among rural and urban rejectees in 1966 to assess rejectees' vocational potentials,

⁶President's Task Force on Manpower Conservation, One-Third of a Nation. Washington, D. C.: Department of Labor, 1963, page 15.

vocational adjustment problems, and special needs for assistance. This study utilized the true case study approach and administered ability and aptitude tests as well as interviews with psychiatric social case workers. Although generalizability of the study's results is limited by self-selection factors and geographic restrictions placed on sampling procedures, it nevertheless finds results similar to those of One-Third of a Nation. The authors conclude that

Almost all...rejectees...have the potential to perform useful work, in most cases at unskilled or semi-skilled levels. However, they have experienced great irregularity of employment and instability of income. In order to improve their vocational adjustment, many need special remedial education in basic language and number skills. Many also need help with psychological problems, and help in developing better work habits...⁷

Row⁸ investigated the relationship of "illiteracy," high school graduation, and rejection in a case study of seven individuals in Delaware who had completed high school and had been rejected by the Selective Service. He concluded that the

⁷Huq, A. M. and Jerdee, T. H., An Intensive Investigation of the Problems Associated with Young Men Who Are Mentally Unqualified for Military Service. Durham, North Carolina: Research Triangle Institute, 1967, page 7.

⁸Row, Howard E., Selective Service Rejection of Alleged Illiterate Graduates from Delaware High Schools. Dover, Delaware: Department of Public Instruction, 1961.

rejectees may have been graduated "at a level below commonly accepted lay standards for high school excellence" and that "In each case of AFQT test failure educators were aware that the student was not capable of regular high school work..." and probably could have predicted rejection.

In a study reported in Project One Hundred Thousand,⁹ the performance of men admitted under new mental standards initiated in 1966 was reported. The median AFQT score for this group was 13.6 percent which would have classified these men under previous standards as 1Y rejectees; that is, trainability limited. Men in this group received literacy training if they were reading and computing below the fifth grade level. Types of tests used to determine grade levels are not reported. It seems, however, that minimum acceptable performance level in the training program is determined as the fifth grade achievement level. Therefore, it would seem to follow that "fifth grade achievement level" is the minimum performance required in the Armed Forces.

The report states that of those men undergoing literacy training, 80 percent complete the course with an improvement ranging from 1.7 to 2.0 years in grade level reading achievement. The report does not explicitly state the number of subjects who

⁹Project One Hundred Thousand. Washington, D. C.: Office of the Secretary of Defense, December, 1969.

were accepted into the literacy training courses and, consequently, it is not possible to determine the exact percent of 1Y men who were reading below fifth grade level and made the claimed achievement gains.

II. The Problem

The basic problem of this study was to delineate from available sources factors associated with Selective Service rejection on the basis of "mental test" scores in Delaware for 1967.

Specifically, the questions were:

1. What are the characteristics of a sample of Delaware youths rejected under Selective Service mental standards in 1967?
2. From information available, how do the characteristics of Delaware's rejectees compare with those characteristics found in other studies?
3. From information available, is it possible to determine if Delaware's rejection rate is high in comparison to the national rejection rate and high in comparison to other states?

III. Limitations

- A. Sample -- Since only the rejectees for 1967 were sampled for this study, it is not possible to generalize the findings to more than the total population of rejectees in 1967. Consequently, we cannot determine if particular characteristics of rejectees are peculiar to rejectees.
- B. Materials -- Available information on reliability, validity, factorial content and other descriptive data about the selective service tests are all but non-existent.

Information on educational, social and family background contained in secondary sources was used. The validity of some of this information is open to question and speculation. No verification of data was attempted since no rejectees were interviewed.

Much of the information available is the product of subjective evaluation and classification.

From the sources available, it was not always possible to collect the same piece of data, and thus information was not complete or comparable for all subjects.

Information is not available to determine how the abilities and achievement levels of Delaware's total draft population compares to other states. .

IV. Procedures

The basic design was a modified case study method in which individual records were examined and reviewed with guidance personnel who were associated with the subjects.

- I. To determine what factors characterize the rejectee and thus the factors which may be related to rejection in Delaware, a random sample was drawn from the rejectees in 1967. This represents the first year of current mental qualifications standards. The sample was drawn by random numbers and represented ten percent of the total number of rejectees in Delaware
(N = 17).

From rejectees' county addresses, the Transportation Department determined the school district in which each sample rejectee attended high school. Examination by districts indicated that the sample of rejectees was proportional to total rejection rate from each county.

Chief school administrators and guidance counselors for each rejectee in the sample were contacted for permission and cooperation in obtaining information from permanent records and guidance folders.

Appointments to meet with counselors were made to obtain information from the rejectee's permanent records and to review the information with the counselor.

To obtain information on the characteristics of rejectees, the following questions were posed and information was reviewed in subjects' permanent records:

1. What is the rejectee's educational background both in and out of school?
 - A. Grade levels completed and/or reasons for leaving school.
 - B. Educational program followed and grades.
 - C. Ability and educational attainment as measured by standardized tests.
 - D. Work experience and special training while still enrolled in schools.
 - E. Any other available information.
2. What is the rejectee's social and family background?
 - A. Size of family.
 - B. Parents' educational level.
 - C. Parents' income and type of vocation.
 - D. Race or ethnic group.
 - E. Rejectee's employment record.
 - F. Any other available information.
3. What is the rejectee's social behavior?

- A. Behavioral problems -- court records, diagnosed psychological problems, and in-school misconduct.
- B. Extra-curricular activities -- school and community club memberships.
- C. Motivations and aspirations.
- D. Any other available information.

The Fisher Exact Method for Analyzing fourfold contingency tables was used to test for significance of relationships between the following:

- a. Rejectee's Educational Level and Parents' Educational Level.
- b. Rejectee's Educational Level and Educational Program Followed.
- c. Rejectee's Educational Level and Social Behavior.
- d. Rejectee's Educational Level and Race.
- e. Educational Program Followed and Social Behavior.

To obtain information on Question II, "How do Delaware's rejectees compare with a national sample?", related studies were reviewed and comparison was made on a frequency and percentage basis. Differences between the Delaware Sample and the national sample from One-Third of a Nation were tested using Chi Square to determine significance.

To obtain information on Question III, "Why is Delaware's rejection rate high?", related literature on the AFQT Mental Tests was reviewed. Correlations of rejection rate with proportion of Negroes, states' percent of households with cash incomes under \$5000, and per pupil expenditure by state were performed to determine strength of relationships. The rejection rate used for the correlation analysis was based on preinduction mental test failures and, therefore, does not correspond with the figures of 1967 given in Table I. Numbers for this analysis were available only for those scoring below the cut-off point on the preinduction test and, consequently, this is the information that has been used.

V. Results

What are the characteristics of a sample of Delaware's rejectees in 1967 (Question I), and how do these characteristics compare with the national sample (Question II)?

General Background of Delaware's Rejectees in 1967

The educational level of all rejectees for 1967 in Delaware (Table II) shows that only one out of five completed high school.

TABLE II

Educational Level of All Delaware Rejectees in 1967

Level	Number	Percent
Completed School	34	19.5
Dropped out of School	140	80.5
Total	174	100.0

Four out of five dropped out of school sometime between their junior high school years and high school.

The racial composition of the rejectees (Table III) shows that 76 or 43.6 percent were white while 98 or 56.4 percent were Negro.

TABLE III

Racial Composition of All Delaware Rejectees in 1967

Race	Number	Percent
White	76	43.6
Negro	98	56.4
Total	174	100.0

Since the racial composition of those being examined for induction is approximately 16 percent Negro (a ratio similar to the population composition reported by the 1960 Census), it seems clear that Negroes have lower mental test scores than whites as measured by the test battery. More specifically, the cut-off point for rejection rate includes approximately 33 percent of the Negroes being examined while the same cut-off point for rejection rate includes 5 percent of the white population being examined.

Under the standards for rejection on the basis of mental test scores in 1967, there were two types of rejectees. Type one was 1Y, comprising individuals who scored such that they fell within the tenth to thirtieth percentile range on the AFQT and failed to achieve a score which would put them at or above the nintieith percentile on the AQB additional aptitude test(s).

Type two was the 4F classification representing individuals whose scores fell below the tenth percentile on the AFQT. Table IV shows that one in five of Delaware's rejectees in 1967 achieved a score that placed them in the 1Y classification. Four out of five fell into the bottom ten percentile range and were rated as 4F.

TABLE IV
Mental Group Classification (1Y, 4F) of All
Delaware Rejectees in 1967

Mental Group Classification	Number	Percent
IY	34	19.6
IVF	139	79.9
Information not available	1	.5
Total	174	100.0

Educational Background of Sample Rejectees

Table V shows the educational level of the sample rejectees. About one in four completed high school. Of those who completed high school, one-half graduated with diplomas while the others received certificates of attendance. Of those who dropped out of school, 50 percent of the sample dropped out from junior high school. None of this group completed ninth grade. The Chi Square test revealed no significant differences between the Delaware and national sample ($p > .05$).

TABLE V

**Educational Level of Sample Rejectees in
Delaware (1967) and in the Nation (1963)**

	Delaware Sample		National Sample
	<u>Number</u>	<u>Percent</u>	<u>Percent</u>
Completed High School	4	25.0	20.0
One-Three Years of High School	4	25.0	38.0
Eight Years or Less	8	50.0	42.0
Total*	16	100.0	100.0

*One subject -- information unavailable

Of the 15 subjects for whom information was available, over 50 percent were found to have failed at least one grade (Table VI). Approximately one-third were found to have failed two or more grades.

TABLE VI

Number of Grades Failed by Sample of Delaware Rejectees

Number of Grades Failed	Number of Rejectees	Percent
One	3	20.0
Two	4	26.7
Three or more	1	6.6
No Failures Reported	7	46.7
Total*	15	100.0

*Two subjects -- information unavailable

Table VIIA shows the educational programs followed and the educational level of the rejectees in the sample.

TABLE VIIA

Educational Programs Followed and Educational Levels of Delaware's Sample Rejectees (1967)

Program	Number	Percent
<u>General Program</u>		
Completed High School	2	12.5
One-Three Years of High School	3	18.8
Eight Years or Less	7	43.9
Subtotal	<u>12</u>	<u>75.2</u>
<u>Vocational Program</u>		
Completed High School	1	6.2
One-Three Years of High School	0	0.0
Eight Years or Less	0	0.0
Subtotal	<u>1</u>	<u>6.2</u>
<u>Other</u>		
Completed High School	1	6.2
One-Three Years of High School	1	6.2
Eight Years or Less	1	6.2
Subtotal	<u>3</u>	<u>18.6</u>
Total*	16	100.0

*One subject -- information unavailable

A majority of sample rejectees were found to have followed general academic programs. Such programs might include one or two courses in Industrial Arts. The majority of the rejectees who dropped out of school followed this general program (83.3 percent). Only one

rejectee was found to have followed what might be considered a vocational program. This was a work-experience program. Three of the rejectees were found to have followed a special education program for low ability students. One completed school and the other two dropped out of school.

Table VIIB contains information on educational programs followed by the national sample of rejectees in 1963 and Delaware rejectees. A Chi Square test of differences was significant ($p < .05$) and the difference appears to lie in what for Delaware was classified as "Other" (Special programs for low ability students). Since the programs for the national sample were not specifically defined, a comparison between Delaware and the national sample is not valid and significant differences may be a result of different classification methods rather than actual differences.

TABLE VIIB

Educational Programs Followed by Sample Rejectees in Delaware (1967) and in the Nation (1963)

Educational Program	Delaware Sample		National Sample
	<u>Number</u>	<u>Percent</u>	<u>Percent</u>
General or Academic	12	75.0	78.0
Business or Commercial	0	00.0	4.0
Vocational or Technical	1	6.2	17.0
Other	3	18.8	1.0
Total*	16	100.0	100.0

*One subject -- information unavailable

Family Background of Sample Rejectees

Table VIII shows the number of brothers and sisters in rejectees' families.

TABLE VIII

Number of Brothers and/or Sisters in Rejectees' Families
in Delaware (1967) and in the Nation (1963)

Number of Brothers and/or Sisters in Family	Delaware Sample		National Sample
	<u>Number</u>	<u>Percent</u>	<u>Percent</u>
None	0	0.0	6.0
One	2	13.3	11.0
Two	1	6.6	12.0
Three	4	26.8	12.0
Four	3	20.1	12.0
Five or More	5	33.2	47.0
Total*	15	100.0	100.0

*Two subjects -- information unavailable

The majority of the rejectees (53 percent) were found to come from families of four or more children. The Chi Square test between Delaware's sample and the national sample revealed no significant difference ($p > .05$).

Information is not complete on the educational level of the rejectees' fathers and mothers (Table IX), however, the fathers

of two rejectees and the mothers of another two completed high school. It should be noted that the records indicated highest grade completed, not necessarily graduation from high school. The Chi Square test on educational levels of fathers for the Delaware and national samples revealed no significant differences ($p > .05$). This supports the hypothesis that the local picture in terms of fathers' educational level is not appreciably different from the national picture. Mothers' educational levels for the national sample were not available.

TABLE IX

Educational Levels of Rejectees' Fathers and Mothers in the Delaware Sample (1967) and of the Fathers in the National Sample (1963)

Grade Level Completed	Delaware Sample				National Sample
	<u>Fathers</u>		<u>Mothers</u>		<u>Fathers</u>
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Percent</u>
None	0	0.0	0	0.0	7.0
Less than Eight Years	2	16.7	4	33.3	45.0
Eight Years	3	25.0	1	8.4	18.0
One-Three Years of High School	5	41.6	5	41.6	14.0
Four Years of High School or More	2	16.7	2	16.7	16.0
Total*	12	100.0	12	100.0	100.0

*Five subjects -- information unavailable

The majority (50 percent) of the rejectees' fathers were found to be laborers (Table X).

TABLE X

Occupations of Rejectees' Fathers in the Delaware Sample (1967) and in the National Sample (1963)

Occupational Classification	Delaware Sample		National Sample
	<u>Number</u>	<u>Percent</u>	<u>Percent</u>
Unskilled	7	50.0	20.0
Semi-skilled	2	14.3	15.0
Skilled	4	28.6	16.0
Other	0	0.0	29.0
Unemployed	1	7.1	20.0
Total*	14	100.0	100.0

***Three subjects -- information unavailable**

Skilled occupations of rejectees' fathers included mechanics and a brick mason. Semi-skilled occupations included an assembler and a construction worker. While the Chi Square test for differences between Delaware's rejectees and the national sample rejectees was significant ($p < .05$), the national sample did not define its classifications and, consequently, it would be injudicious to judge the significance of differences valid except perhaps for the differences in the unemployed category.

Information is not complete on the rejectees' parents' birthplaces (Table XI); however, five rejectees were found whose parents were born in Delaware and five were found whose parents were born in the South or other geographic areas.

TABLE XI
Birthplaces of Parents of Rejectees in the
Delaware Sample (1967)

Birthplace of Both Parents	Number	Percent
Delaware	5	50.0
South	3	30.0
Other	2	20.0
Total*	10	100.0

*Seven subjects -- information unavailable

Family status (Table XII) -- two out of three of the rejectees were found to be living with their parents. One out of three rejectees was found to come from a broken home. This does not seem to be unduly high in comparison to national figures from the U. S. Bureau of the Census.¹⁰

¹⁰U. S. Bureau of the Census, Pocket Data Book, U.S.A. 1969. Washington, D. C.: U. S. Government Printing Office, 1969, page 67.

TABLE XII

**Marital Status of Rejectees' Families in the
Delaware Sample (1967)**

Marital Status	Number	Percent
Parents Living Together	10	66.7
Parents Separated or Divorced	5	33.3
Total*	15	100.0

*Two subjects -- information unavailable

Social Background of Sample Rejectees

Nine rejectees, 56 percent of the sample, were found not to have participated in extra-curricular activities while in school (Table XIII) and approximately 45 percent were found to have participated in activities such as athletics or music.

TABLE XIII

**Reported Participation in Extra-curricular Activities by
Delaware Sample Rejectees (1967)**

Extra-curricular Activities	Number	Percent
No Participation Reported	9	56.6
Participation Reported	7	43.4
Total*	16	100.0

*One subject -- information unavailable

Seven of the fifteen for whom information was available were found to have no record of disciplinary action or problems while they were in school (Table XIV). Four of the fifteen were found to have some disciplinary action such as suspension and detention for misbehavior and truancy while they were in school. Four of the fifteen were found to have had major disciplinary action taken while they were in school. This disciplinary action consisted of being sent to Ferris School.

TABLE XIV

Recorded Disciplinary Actions Taken Against Rejectees in Delaware Sample (1967)

Disciplinary Action Reported	Number	Percent
Major Action	4	26.7
Some Action	4	26.7
None	7	46.6
Total*	15	100.0

***Two subjects -- information unavailable**

Results of the Fisher Exact Probability Test to determine significance of relationships among rejectee characteristics are as follow:

- a. Rejectee's educational level was dichotomized

as completion or non-completion of high school while fathers' and mothers' educational levels were dichotomized in the same manner. Differences were not found to be significant at the $p = .05$ level although they approached significance. Since the contingency tables contained 0's or no occurrence in one cell, it is possible that the .05 level of significance might have been reached with a larger sample.

- b. For this test, rejectees' educational level was dichotomized as high school completion or non-completion and educational program followed was dichotomized as special (containing some vocational courses or low ability classes) and general academic (containing academic and industrial arts courses). The two tailed test of relationship was significant at the .009 level suggesting that there exists a strong relationship between educational program followed and dropping out of school.
- c. For this test, education level was dichotomized as in b and social behavior was dichotomized as "problematic" (containing

four subjects sent to Ferris School and one subject who was suspended and was an in-school behavioral problem) and "non-problematic" (no trouble reported, truancy). No significant relationship was found to exist between educational level attained and social behavior.

- d. For this test, educational level was dichotomized as in a and b and race was dichotomized as white and Negro. No significant relationship was found for educational level attained and race.
- e. For this test, educational program followed was dichotomized as in b and social behavior as in c. No significant relationship was found between type of educational program and social behavior, although significance was approached at the $p = .05$ level suggesting that among rejectees, social behavior may be related to type of program followed.

No single standardized test was found to have been administered to all rejectees and, consequently, it was not possible to determine any mean ability level of the group. The same lack of standardized test information was found for achievement levels.

Information about job training and work experience showed that approximately 33 percent of Delaware's rejectees worked part-time during their years in school but information about work experiences after leaving school was not available. Follow-up information that was available indicated that three of the sample who had dropped out of school had completed or attempted to complete their high school education. One of these three had enrolled in a Job Corps training program out-of-state while the other two had attended James H. Groves Adult High School.

Question III -- Why is Delaware's rejection rate relatively high?

Literature on the AFQT test indicated that a percentile score of ten was fixed by Congress as a minimum passing score and, consequently, this score was designated to eliminate ten percent of the total population being examined within the lowest aptitude range.¹¹ The reader will recall that this test is both a measure of ability and achievement and appears to be consistent with the standardized measures given by the schools (Appendix B).

Table XV gives the correlation coefficients of rejection

¹¹Karpinos, Bernard D., Qualification of American Youths For Military Service. Washington, D. C.: Medical Statistics Division, Office of the Surgeon General, Department of the Army, 1962, page 11.

rate based on preinduction mental test scores of 50 states with their:

- a. proportion of Negroes examined,
- b. percent of households in state with incomes under \$5000,
- c. per-pupil expenditures as percent of national average:¹²

TABLE XV

Correlation Coefficients of Selected Characteristics of
National Sample Rejection Rates of the 50 States

Characteristic	Rejection Rate
Proportion of Negroes examined	0.92*
Percent of Households in state with incomes under \$5000.00	0.48*
Per-pupil expenditures as percent of national average	0.33**

*Significant at .01 level

**Significant at .05 level

¹²Rankings of the States, 1968. Washington, D. C.: Research Division, National Education Association, 1968.

VI. Conclusions

On the basis of information obtained about rejectees and rejection standards, it may be predicted that factors related to rejection are:

1. low ability as determined by the AFQT (see also Appendix B)
2. low levels of educational achievement and attainment
3. low parental educational attainment
4. low socio-economic levels
5. race-being what is usually classified as Negro.

The generally low socio-economic status of the rejectees is delineated by parents' occupations and educational levels, and to some extent, the large size of rejectees' families. When the disproportionately higher Negro rejection rate (see Table III) and the traditionally lower socio-economic status of Negroes are considered, then socio-economic status and its relationship to rejection becomes even more important as a possible predictor of rejection.

That the socio-economic factor is related to rejection is even more strongly suggested by the high correlations of rejection rate with proportions of Negroes examined, number of households in states with cash incomes under \$5,000 and per-pupil expenditure. These correlations can be thought of as predictive of rejection rate and further suggest that rejection rate increases as:

1. The proportion of Negroes examined increases,

2. The proportion of households with cash incomes under \$5,000 increases,
3. The proportion of per-pupil expenditure decreases.

While these correlations cannot be seen as causal of rejection, it is thought that they are indicative of factors such as ability, achievement and attitudes towards education that could be causally related to scores on the AFQT.

Since the AFQT is designed to eliminate individuals in the lowest ten percentile ability range, we would expect ten percent of the rejectees to fall into the Group V, 4F, mental classification. In Delaware in 1967, 139 rejectees (see Table IV) were classified in this lowest mental group. This is 7.6 percent of the population examined and thus the rejection rate is not higher than what could be predicted from the test's classification function.

The fact that Delaware has a higher rejection rate than 31 other states could probably be predicted from the socio-economic factors related to the number of Negroes examined by the AFQT. Delaware's population examined in 1967 was 16.3 percent Negro. The only other state having a lower rejection rate than Delaware and having its examined population made up of more Negroes (20.0 percent) was Florida, which had a rejection rate of 9.7 percent compared to Delaware's 10.2 percent. Thus, it would

seem that given the socio-economic factors associated with this ethnic group, the socio-economic factors determine rejection rate as the proportion of Negroes examined increases.

The meaning of the socio-economic factor in relation to rejection is apparent:

1. The AFQT, like other measures of ability, measures socio-economic factors.
2. Further, the socio-economic factors measured by the AFQT traditionally lie outside the realm of the schools and beyond education's influence as it is presently structured.
3. Unless the socio-economic conditions that lie beyond the influence of education are changed so that the individual is affected, it can be expected that at least ten percent of a population will be rejected on the basis of not performing at a "fifth grade level."

This is as true of Delaware with its disproportionate Negro failure rate as it is on the national level.

VII. Discussion

The implications and import of this study's findings for education in Delaware might be inferred from the number of rejectees who were found to be school dropouts. The significance of this factor coupled with the disproportionately higher Negro rejection rate would seem to call for an extensive revision of curriculum and consequent adoption of grade level performance criteria that would ensure the achievement levels of students.

Recent research in the area of school achievement has investigated factors related to achievement and has been concerned with the influence of socio-economic and ethnic factors on mental processes. The work of Arthur R. Jensen suggests that learning abilities (defined as free recall, and serial and paired-associate learning)¹³ involve much more than what has traditionally been called intelligence, the primary factor in predicting success in school. According to Jensen, tests of learning ability fail to differentiate among low and high measured intelligence scores for low socio-economic group children while the same tests do differentiate measured intelligence among middle and upper class groups.

¹³Jensen, Arthur R., "Social Class, Race, and Genetics: Implications for Education," American Education Research Journal, Volume 5, January, 1968, page 34.

Thus, intelligence tests would seem poor measures of the learning abilities of lower class children. If total learning ability correlates with what is taught by schools, then the question about why lower socio-economic groups do not achieve in school remains. Jensen hypothesizes that learning ability does not transfer to the classroom because of the classroom situation which requires self-control of attention, perception of order, self-initiated rehearsal of newly acquired behavior, self-reinforcement for successful performance, and autonomous symbolic mediation, among other processes.¹⁴

Other research has investigated the effects of social class and ethnic group on mental ability. Stodolsky and Lesser¹⁵ have found an interaction effect of social class and ethnic factors on mental ability among lower class children that is not readily apparent among middle-class children. They further suggest the existence of patterned attributes of mental abilities either cultural or inherited that are related to cognition, personality, and motivation. The effects of low socio-economic status on mental ability have also been found by Jensen, particularly the interaction effect on children in the intelligence range of 60-80.

¹⁴Jensen, op. cit., page 37.

¹⁵Stodolsky, Susan S. and Lesser, Gerald, "Learning Patterns in the Disadvantaged," Harvard Educational Review, Volume 37, Fall, 1967.

Given the implications of this research, it would seem that curricular revision might be undertaken to consider different learning patterns and abilities of lower socio-economic groups. The product of such revisions would enable each child to maximally utilize his learning potential and consequently permit the schools to guarantee levels of achievement.

Unfortunately, more research is needed on learning patterns and the relationship to achievement. Thus, merely requiring certain levels of performance as a contingency for promotion in schools without the custom-tailored learning programs necessary for the success of certain individuals would only guarantee school dropouts with known failure levels, not high school graduates who had successfully reached achievement potential.

In light of this study's findings of a significant relationship between educational program followed and grade level attained, it would seem that programs tailored to individual differences in cultural, social, and economic backgrounds are mandated by the disproportionately high failure rate of Negroes and members of low socio-economic status in Delaware. Given these programs, it would then be conceivable that grade achievement levels could be delineated and performance at these levels accomplished. On the basis of related research and findings of this study, it is recommended that vocationally oriented occupational programs be made available to all students in Delaware, not just those of

average ability and intelligence. It is evident from the history of failure among rejectees that these programs should be instituted in the early school years and should emphasize special help for low socio-economic group members and Negro students. These career oriented programs would at least provide an alternative to general and academic programs which have proven their inadequacy and worthlessness in educating a proportion of Delaware's population.

Through such programs, responsibility for educational opportunity would no longer depend upon the individual and his self-actualization to respond to an education that is designed for everyone; instead, responsibility would rest with the state and local systems to provide the type of programs that permit individuals to fulfill their potential for educational and occupational achievement and overcome environmental handicaps. In view of the effects of social status and ethnic group membership on ability and achievement, such programs may offer a useful approach to the problem of equal educational opportunity.

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APPENDIX A

Data Matrix for the Sample of Delaware Selective
Service Rejectees (1967) for Each Subject

APPENDIX A

Data Matrix for the Sample of Delaware Selective Servi

Subject Number	Grade Levels Completed	Educational Program Followed	Work Experience and Special Job Training	Number of Brothers and Sisters in Family	Parents' Grade Levels Completed Father Mother	Fath Voca	
004	8	General	*	9	12	8	Labo Mech
022	8	Special	Gas Station Attendant	2	7	10	
031	9	General	Barber	4	10	9	
037	8	General	*	1	9	10	Mech Labo Pota Grow
047	6	General	*	3	6	12	
059	12	Special	Carpentry at Voc. Tech.	3	**	**	**
065	Did not complete school Grade Level not available	**	**	**	**	**	**
077	12	General	Vocational Courses	**	**	**	Mech
083	12	General	Mechanics	4	10	10	Maso
100	7	General	Janitorial Clerk	1	8	7	*
126	8	General	*	7	11	10	Labo
136	8	General	Vocational Courses	3	12	7	Cons
140	8	General	*	6	**	**	Labo Unem
143	10	General	Vocational Courses	3	9	12	

APPENDIX A

lective Service Rejectees (1967) for Each Subject

ade léted ther	Father's Vocation	Rejectee's Race		Social Behavior In and Out of School	Extra- Curricular Activities	Number of Grades Failed	Parents' Birthplace	Parents Living Together
		White	Negro					
8	Laborer		X	Truancy	*	2	*	Yes
10	Mechanic	X		Detention	*	1	*	Yes
9	Laborer		X	*	Band, Pro- jectionist	1	*	Yes
0	Mechanic	X		*	Baseball	2	*	No
2	Laborer and Potato Grower	X		*	*	3	Delaware	Yes
*	**	X		*	*	*	**	No
*	**		X	**	**	**	Delaware	**
*	Mechanic		X	**	Athletics	**	**	**
0	Mason		X	*	Music, Athletics	*	Delaware	Yes
7	*		X	Truancy	*	2	Michigan	No
0	Laborer		X	Sent to Ferris School	Checkers	1	Delaware	No
	Construction		X	Sent to Ferris School	*	*	Mother - Va. Father - Texas	No
	Laborer		X	Suspension	*	*	Delaware	Yes
	Unemployed		X	Sent to Ferris School	Basketball	*	Mother - N.C. Father - Georgia	Yes

Subject Number	Grade Levels Completed	Educational Program Followed	Work Experience and Special Job Training	Number of Brothers and Sisters in Family	Parents' Grade Levels Completed Father	Grade Completed Mother	Father's Vocation
152	12	Work-Study	Service at Restaurant	4	8	7	Assembly
162	9	Special	Landscaping Work	6	*	*	Handyman
169	10	General	Farm	7	8	7	Laborer

*No report

**Information unavailable

Grade Completed Mother	Father's Vocation	Rejectee's Race		Social Behavior In and Out of School	Extra- Curricular Activities	Number of Grades Failed	Parents' Birthplace	Parents Living Together
		White	Negro					
7	Assembly	X		*	*	*	Mother - England Father - W. Va.	Yes
*	Handyman		X	Sent to Ferris School	*	*	*	Yes
7	Laborer	X		*	Art, Chess	*	*	Yes

APPENDIX B

Standardized Test Information On Sample Rejectees

APPENDIX B

Standardized Test Information on Sample Rejectees

Subject Number	Ability Tests	Achievement Tests
004	1963 School and College Ability Test Total 02% to 06%	Standford Achievement Test tested at age 12 -- grade level, 3.6 Sequential Tests of Educational Progress 1963 Math 00% to 14% Reading 08% to 20%
022	Otis I. Q. tested in 4th grade -- I.Q. 93 5th grade -- I.Q. 81 7th grade -- I.Q. 72 1963 School and College Ability Test Total 21% to 32%	Sequential Tests of Educational Progress 1963 Math 00% to 23% Reading 03% to 12%
031	1964 School and College Ability Test Total 00% to 03%	Sequential Tests of Educational Progress 1964 Math 00% to 12% Reading 00% to 00%
037	1960 Otis I.Q. 76 retest I.Q. 83 1962 School and College Ability Test Total 10% to 14%	Sequential Tests of Educational Progress 1962 Math 35% to 73% Reading 10% to 23%
047	Otis I.Q. 84 California Test of Mental Maturity I.Q. 92	*
059	Wechsler Adult Full Scale I.Q. 72	*
065	**	*

Subject Number	Ability Tests	Achievement Tests
077	**	
083	1964 School and College Ability Test Total 04% to 11%	Sequential Tests of Educational Progress 1964 Math 25% to 54% Reading 05% to 14%
100	California Test of Mental Maturity 1960 I.Q. 78	California Achievement Test 1961: tested in grade 6, at age 13, grade level Reading 4.8 Math 5.2
126	California Test of Mental Maturity 1964 I.Q. 68	
136	1956 Stanford Binet I.Q. 97 California Test of Mental Maturity 1960 I.Q. 95 1960 Wechsler I.Q. 80 California Test of Mental Maturity 1962 I.Q. 83	* ERIC Clearinghouse * SEP 12 1970 on Adult Education
140	*	California Achievement Test tested in grade 8, 3-4 years below grade level
143	1960 Otis I.Q. 91 1963 California Test of Mental Maturity I.Q. 75	*
152	Wechsler I.Q. 80	*
162	1956 Wechsler I.Q. 71	*
169	1961 Otis I.Q. 91 1963 School and College Ability Test	Sequential Tests of Educational Progress 1963 Math 00% to 01% Reading 09% to 20%
ERIC Clearinghouse SEP 12 1970 on Adult Education		
*No report **Information unavailable		